ALGORITHM FOR AUTOMATIC LAYOUT

OF OBJECTS IN A DISPLAY

ABSTRACT OF THE DISCLOSURE

Systems and methods that automatically arrange, or re-arrange, object nodes in a diagram such that the total length of all associations between nodes and the number of overlapping associations is reduced or minimized. In mathematical terms, the process simplifies the graphical representation of an arbitrary graph. In one aspect, processes of the invention use a physical model of particle interactions to determine a minimal energy state, with object nodes modeled as particles and the associations between the object nodes modeled as interaction forces. Perturbations applied to the system allow for a determination of a minimal energy state

59059798 v1

17